

We claim:

1. An enriched protein comprising intimin or a portion of intimin, wherein said portion induces antibodies that block wild-type binding activity.
2. A purified protein comprising intimin or a portion of intimin, wherein said portion induces antibodies that block wild-type binding activity.
3. A protein, comprising intimin, an intimin-like protein, or a portion thereof, wherein said intimin, said intimin-like protein, or said portion thereof has a histidine tag.
4. A protein according to claim 3, wherein said intimin, said intimin-like protein, or portion thereof is enriched.
5. A protein according to claim 3, wherein said intimin, said intimin-like protein, or portion thereof is purified.
6. A protein according to claims 1, 2, 3, 4 or 5, wherein said intimin, intimin-like protein further, or portion thereof comprises at least one antigen, at least one drug or a combination thereof chemically, physically or recombinantly conjugated with said intimin, said intimin-like protein, or portion thereof.
7. A method for making purified intimin or a purified portion of intimin, comprising:
 - expressing a protein comprising intimin or a portion of intimin, wherein said intimin or portion of intimin has a histidine tag, and
 - purifying said intimin or said portion of intimin.

8. A method according to claim 7, further comprising removing said histidine tag from said intimin or portion of intimin before or after said purification.

9. A method for making a purified intimin-like protein or portion thereof, comprising expressing a protein comprising an intimin-like protein, or portion thereof, having a histidine tag, and purifying said intimin-like protein or portion thereof.

10. A method according to claim 9, further comprising removing said histidine tag from said intimin-like protein, or portion thereof, before or after said purification.

11. A method for making enriched intimin or an enriched portion of intimin, comprising:

- expressing a protein comprising intimin or a portion of intimin, wherein said intimin or portion of intimin has a histidine tag, and
- enriching said intimin or said portion of intimin.

12. A method according to claim 11, further comprising removing said histidine tag from said intimin or portion of intimin after said enrichment.

13. A method for making an enriched intimin-like protein or portion thereof, comprising expressing a protein comprising an intimin-like protein, or portion thereof, having a histidine tag, and enriching said intimin-like protein or portion thereof.

14. A method according to claim 13, further comprising removing said histidine tag from said enriched intimin-like protein or portion thereof.

15. A method of promoting a protective immune response against bacteria expressing intimin or intimin-like proteins, comprising administering to a patient intimin, an intimin-like protein, or a portion thereof which induces antibodies that block binding activity.

16. A method according to claim 15, wherein said intimin, intimin-like protein, or portion thereof is purified.

17. A method according to claim 15, wherein said intimin, intimin-like protein, or portion thereof is enriched.

18. A method according to claim 15, wherein said intimin, intimin-like protein, or portion thereof is histidine-tagged.

19. A method of promoting a protective immune response against at least one antigen comprising administering to a patient a composition comprising at least one antigen chemically, physically or recombinantly conjugated to intimin, to an intimin-like protein, or to a portion thereof, wherein said portion retains binding function.

20. A method according to claim 19, wherein said intimin, intimin-like protein, or portion thereof is purified.

21. A method according to claim 19, wherein said intimin, intimin-like protein, or portion thereof is enriched.

22. A method according to claim 19, wherein said intimin, intimin-like protein, or portion thereof is histidine-tagged.

31. A composition according to claim 28, wherein said antibodies are polyclonal antibodies.

32. A composition according to claim 28, wherein said antibodies are affinity-purified.

33. A method of preparing anti-intimin antibodies comprising:

- expressing intimin having a histidine tag or a portion of intimin having a histidine tag,

- administering said intimin or portion of intimin to a patient, and

- recovering anti-intimin antibodies.

34. A method according to claim 33, further comprising removing the histidine tag before said administration.

35. A method according to claim 33, further comprising enriching said intimin or said portion of intimin before said administration.

36. A method according to claim 35, further comprising removing the histidine tag after said enrichment.

37. A method according to claim 35, further comprising purifying said intimin or said portion of intimin before said administration.

38. A method according to claim 37, further comprising removing the histidine tag before or after said purification.

23. A method of targeting the delivery of at least one antigen, at least one drug, or a combination thereof to epithelial cells, comprising administering to a patient a composition comprising at least one antigen, at least one drug or a combination thereof, conjugated to intimin, to an intimin-like protein, or to a portion thereof, wherein said portion retains binding function.

24. A method according to claim 23, wherein said intimin, intimin-like protein, or portion thereof is purified.

25. A method according to claim 23, wherein said intimin, intimin-like protein, or portion thereof is enriched.

26. A method according to claim 23, wherein said intimin, intimin-like protein, or portion thereof is histidine-tagged.

27. A method of providing passive immune protection comprising administering anti-intimin antibodies to a patient in need thereof.

28. A composition comprising anti-intimin antibodies, wherein the composition is free of other antibodies specific for an intimin-expressing host bacteria.

29. A composition according to claim 28, wherein said composition is free of other antibodies specific for EHEC.

30. A composition according to claim 28, wherein said antibodies are monoclonal antibodies.

39. A method of preparing anti-intimin antibodies comprising:

- expressing an intimin-like protein, or portion thereof, having a histidine tag,
- administering said intimin-like protein, or portion thereof, to a patient, and
- recovering anti-intimin antibodies.

40. A method according to claim 39, further comprising removing the histidine tag before said administration.

41. A method according to claim 39, further comprising enriching said intimin-like protein or portion thereof before said administration.

42. A method according to claim 41, further comprising removing the histidine tag after said enrichment.

43. A method according to claim 41, further comprising purifying said intimin-like protein or portion thereof before said administration.

44. A method according to claim 43, further comprising removing the histidine tag before or after said purification.

45. An enriched protein comprising intimin or a portion of intimin, wherein said portion retains wild-type binding activity.

46. A purified protein comprising intimin or a portion of intimin, wherein said portion retains wild-type binding activity.

47. A method of promoting a protective immune response against bacteria expressing intimin or intimin-like proteins, comprising administering to a patient intimin, an intimin-like protein, or a portion thereof which retains binding activity.

48. A method according to claim 47, wherein said intimin, intimin-like protein, or portion thereof is purified.

49. A method according to claim 47, wherein said intimin, intimin-like protein, or portion thereof is enriched.

50. A method according to claim 47, wherein said intimin, intimin-like protein, or portion thereof is histidine-tagged.

add
B₂

add
D₁

add
E₂

add
F₂

add
G₅